



COLOR TELEVISION

Chassis: K16C(N)_Valiant
Model : CL21Z50MQ3XXAP

SERVICE Manual

COLOR TELEVISION

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CL-21Z50MQ

Refer to the service manual in the GSPN (see the rear cover) for the more information.

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2. Product Specification

2-1 Product Specification

Features			
Block	Specification	Major IC	Remark
CRT	21" FLAT Slim CRT	21" Vixlim CRT	
RF Part	1 TUNER F/S TUNER	TDQ-6F/13F2S	
Power	Input Voltage : Mexico:AC 110V(Other: AC100 ~ 240V) Stand-By : 3W UNDER	STR-W6750F	
Video	NTSC 3.58, ATSC	VCT4822	
	1H Comb Filter		
	Interlaced Scan		
Sound	Output : 5W x 2	VCT4822, LA42032	
	Function : MTS, Surround, Turbo		
Cabinet	21Z50 Cabinet	Z50 Cabinet	
Specification			
Model	CL-21Z50MQ		
Screen Size	21"		
Dimensions (WxHxD)	690 x 435 x 580 mm		
Weight	19.5 kg		
Voltage	Mexico:AC 110V(Other: AC100 ~ 240V)		
Speaker Output	5W + 5W		

2-2 Specifications Analysis





※ ○: application, ×: non-application

Model		CL-21Z50MQ	CL-21Z50MQ
Design			
Basic	Product Type	FLAT CRT	FLAT CRT
	Digital TV	Analog	Analog
	Digital Display	480i	480i
	Screen Size	21	21
	Aspect Ratio	4:3	4:3
Visual Quality	Progressive Scan	○	○
	Digital Comb Filter	×	×
	Screen Pitch	0.73	0.73
	Digital Noise Reduction	×	×
	AKB	○	○
	DNle	×	×
	3:2 Pull Down Support	×	×
Audio	Base/Treble/Balance	×	×
	Equalizer	×	×
	AVL	○	○
	Surround	×	×
	Speaker System	Direct	Direct
	Speaker Output	5W + 5W	10W + 10W
Function	Dual Screen Function	×	×
	Double Screen	×	×
	Caption	Eng	Eng
	Still Picture	×	×
	Auto Jack Recognition	×	×
	EPG	×	×
	Network	×	×
Ports	Antenna In	Rear:1	Rear:2
	External In	Rear1, side1	Rear1, side1
	S-Video	×	×
	Y/Pb/Pr	Rear:1	Rear:1
	PC	×	×
	DVI	×	×
	HDMI	×	×
	Digital Audio Out	×	×
	Video Out	Rear:1	Rear:1
Remote Controller		TM85	TM85





※ For the power supply and power consumption, refer to the label attached to the product.

2-3 Accessories

2-3-1 Supplied Accessories

Accessories	Item	Item code	Remark
	Remote Control Batteries	AA59-00385C 4301-000103	Samsung Service center
	Power Cord	-	
	Owner's Instructions	AA68-03806H	
	Warranty Card Registration Card Safety Guide Manual	AA68-03727A - AA68-03242L	

2-3-2 Accessories that can be purchased additionally

Accessories	Item	Item code	Remark
	RF Cable	-	Electronics Store/ Internal shopping mall
	Video Cable	-	
	Audio Cable	-	
	Component Cables (RCA)	-	

MEMO

1. Precaution

To avoid possible damages or electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD.

1-1 Safety Precautions

1. Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.
2. Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the vacuum tube and the cabinet mask, and the improper installation of the rear cabinet.

Errors may occur when the resistance is below 1.0 M Ω or over 5.2 M Ω .

In these cases, make sure that the device is repaired before sending it back to the customer.

3. Check for Electricity Leakage (Figure 1-1)
Warning: Do not use an insulated transformer for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

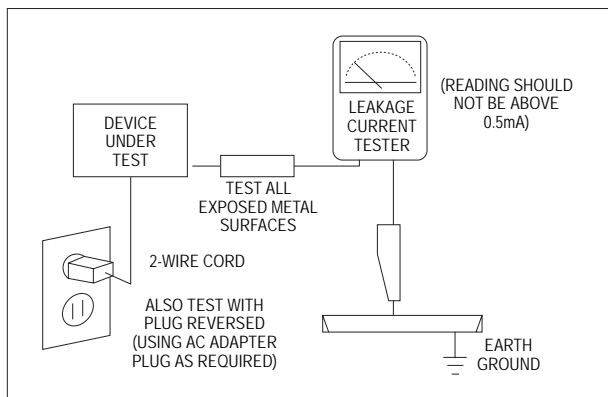


Fig. 1-1 AC Leakage Test

4. A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.



5. Warning for Engineering Changes:
Never make any changes or additions to the circuit design or the internal part for this product.
Ex: Do not add any audio or video accessory connectors. This might cause physical damage.
Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.
6. Warning - Hot Chassis:
Some TV chassis are directly connected to one end of the AC power cord for electrical reasons.
Without insulated transformers, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before re-inserting it. Measure the voltage between the chassis and the ground again.

7. Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.
8. When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.
9. Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10. Safety Indication:

Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

Critical safety parts should be bracketed with ( ).
Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications).
Irregular parts or materials may cause electric shock or fire.

1-2 Servicing Precautions

Warning 1: First carefully read the "Safety Instruction" in this service manual.

When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

Warning 2: Any electrolytic capacitor with the wrong polarity will explode.

1. The service instructions are printed on the cabinet, and should be followed by any service personnel.
2. Make sure to unplug the AC power cord from the power source before starting any repairs.
 - (a) Remove or re-install parts or assemblies.
 - (b) Disconnect the electric plug or connector, if any.
 - (c) Connect the test part in parallel with the electrolytic capacitor.
3. Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.
4. After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.
5. Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).
6. Insulation Check Process: Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500v) to the AC plug blade.

The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1 MΩ.
7. Any B+ interlock should not be damaged.
If the metal heat sink is not properly installed, no connection to the AC power should be made.
8. Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.
9. Beware of risks of any current leakage coming into contact with the high-capacity capacitor.
10. The sharp edges of the metal material may cause physical damage, so ensure wearing protective gloves during the repair.

1-3 Static Electricity Precautions

1. Some semi-conductive ("solid state") devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.
2. Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or ass'ys. Alternatively, wear a dischargeable wrist-belt.
(Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)
3. Remove the ESD ass'y and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.
4. Do not use any Freon-based chemicals.
Such chemicals will generate static electricity that causes damage to the ESD.
5. Use only grounded-tip irons for soldering purposes.
6. Use only anti-static solder removal devices.
Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.
7. Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.
8. Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit ass'y.
9. Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

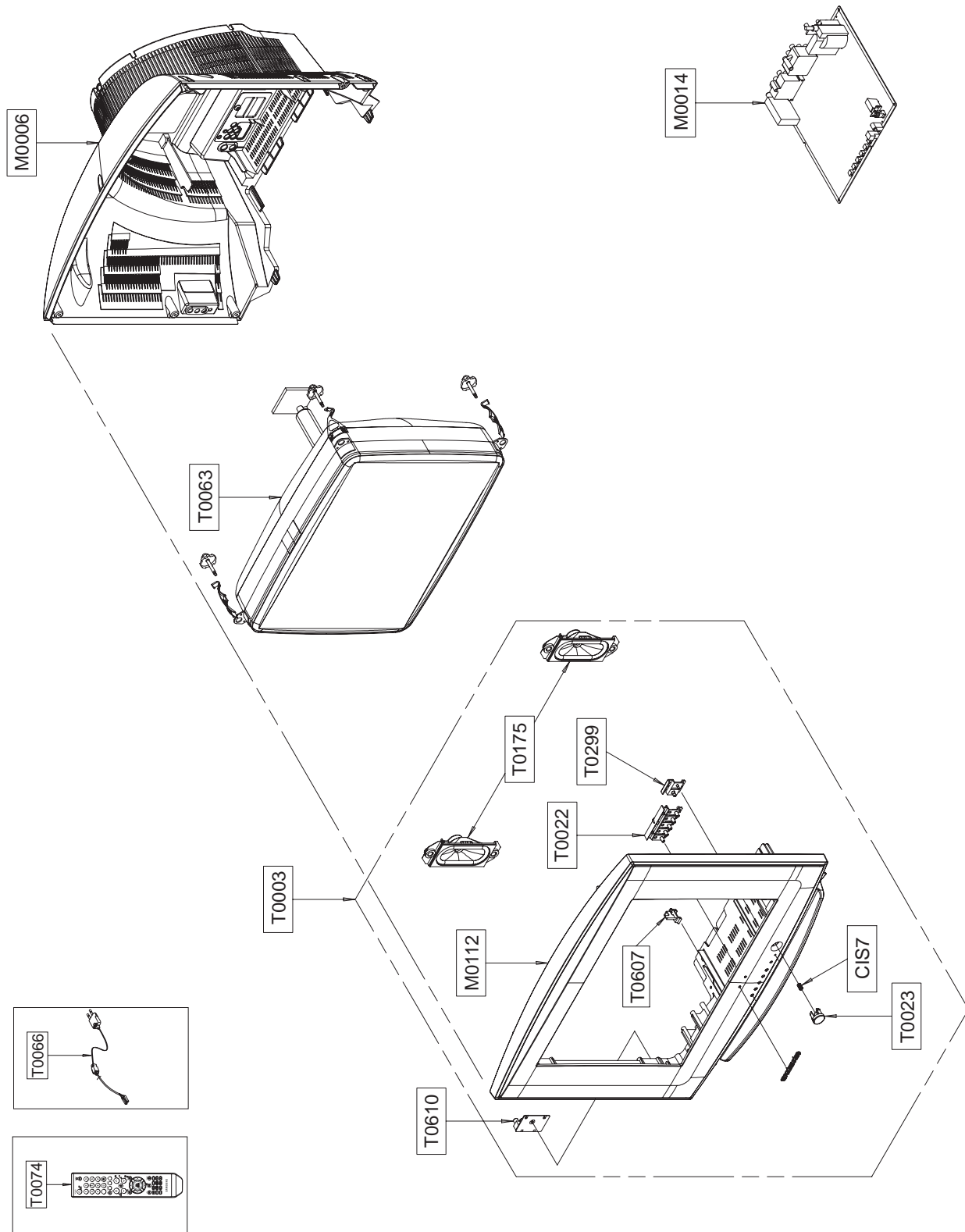
1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the high-voltage cable or the antenna falling over may cause fire or electric shock.
7. Check the basics of the screen test.
 - Image position/size, Tilt adjustment

MEMO

5. Exploded View & Part List

5-1 CL21Z50MQ3XXAP Exploded View



Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0006	AA63-01555D	COVER-REAR	21Z50,HIPS,HB,BK500,ASIA	1	S.N.A	
M0014	AA96-04986A	ASSY PCB P-MAIN	CL21Z50MQ3XXAP, VALIANT,	1	S.A	⚠
M0112	AA63-01553E	COVER-FRONT	21Z50,HIPS,HB,GR503,BKN1576+	1	S.N.A	
T0003	AA96-04720F	ASSY COVER P-FRONT	21Z50,,HIPS,HB,,BKN15	1	S.A	
T0022	AA64-04430A	KNOB CONTROL	21Z50 / 21Z51,ABS,HB,BKN157	1	S.N.A	
T0023	AA64-04429A	KNOB POWER	21Z50 / 21Z51,ABS,HB,BKN1576	1	S.N.A	
T0063	AA03-00533A	CRT COLOR	A51QGV991X201,+380mG,0.915,9.1	1	S.A	⚠
T0066	AA96-20112C	ASSY POWER CORD	-,EP2/NO,H/C250,KJ10,THA	1	S.A	⚠
T0074	AA59-00385C	REMOCON	TOMORROW,TM85,S3C1860XP0-SKT1,30	1	S.A	
T0175	AA96-04766A	ASSY SPEAKER P	8ohm,10W,R/B700mm,Y/B500m	1	S.A	
T0299	AA64-04431A	WINDOW-RMC,LED	21Z50/ 21Z51,PC,CLEAR	1	S.N.A	
T0607	AA61-40113A	STOPPER-PCB	501H,HIPS,-,-,HB,NTR,-	1	S.N.A	
T0610	AA96-04791A	ASSY PCB P-AV SIDE	-,,-,-,CARTER & FANT	1	S.N.A	

5-2 CL21Z50MQ3XXAP Electrical Part List

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
ASSY CHASSIS						
M0017	AA91-10945C	ASSY CHASSIS	21Z43/21Z50/21Z57,XAP	1	S.N.A	
M0014	AA96-04986A	ASSY PCB P-MAIN	CL21Z50MQ3XXAP, VALIANT,	1	S.A	
00VER	AA41-01279A	PCB CRT	1 ROBOT2,FR-4,1L,1.0,1.6T,69.5*7	1	S.N.A	
C	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C	2401-000010	C-AL	220uF,20%,16V,GP,-,6.3x11mm,2.5	1	S.A	
C	2401-000038	C-AL	470uF,20%,25V,GP,TP,10x12.5mm,	1	S.A	
C	2401-000262	C-AL	100uF,20%,160V,HR,TP,16x25,7.5	1	S.A	
C	2401-000262	C-AL	100uF,20%,160V,HR,TP,16x25,7.5	1	S.A	
C	2401-000302	C-AL	100uF,20%,25V,GP,TP,6.3x11,5	1	S.A	
C	2401-000360	C-AL	100uF,20%,50V,GP,TP,8x11.5,5	1	S.A	
C	2401-000360	C-AL	100uF,20%,50V,GP,TP,8x11.5,5	1	S.A	
C	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C	2401-000493	C-AL	10uF,20%,50V,LZ,TP,5x11mm,5mm	1	S.A	
C	2401-000603	C-AL	1uF,20%,50V,GP,TP,5X11,2	1	S.A	
C	2401-000603	C-AL	1uF,20%,50V,GP,TP,5X11,2	1	S.A	
C	2401-000649	C-AL	2.2uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-000649	C-AL	2.2uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C	2401-001026	C-AL	3.3uF,20%,50V,GP,TP,5X11,5	1	S.A	
C	2401-001232	C-AL	4.7uF,20%,250V,GP,TP,10x12.5,5	1	S.A	
C	2401-001397	C-AL	470uF,20%,25V,GP,TP,10x16,5	1	S.A	
C	2401-001576	C-AL	47uF,20%,50V,GP,TP,8x11.5,5mm	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-001989	C-AL	4.7uF,20%,50V,BP,TP,5x11,5	1	S.A	
C	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C	2401-002144	C-AL	47uF,20%,16V,GP,TP,5x11,5	1	S.A	
C	2401-002291	C-AL	47uF,20%,16V,GP,TP,6.3x5,5	1	S.A	
C	2401-002291	C-AL	47uF,20%,16V,GP,TP,6.3x5,5	1	S.A	
C	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C	2401-003010	C-AL	1000uF,20%,6.3V,GP,TP,8x11.5mm	1	S.N.A	
C	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	S.A	
C	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	S.A	
C	2401-003036	C-AL	100uF,20%,16V,GP,TP,5X11mm,5mm	1	S.A	
C	2401-003555	C-AL	3300uF,20%,25V,WT,TP,16x25,7.5	1	S.A	
C	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C	2401-002128	C-AL	220uF,20%,400V,GP,BK,25x40mm,10	1	S.A	
C101	2306-000122	C-FILM,LEAD-PPF	100nF,5%,50V,TP,7.3x4.0x	1	S.A	
C102	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C103	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C209	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C210	2202-002253	C-CERAMIC,MLC-AXIAL	100.0nF,+80-20%,50.0	1	S.A	
C212	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C213	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C214	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C217	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C218	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C221	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C222	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C223	2201-000389	C-CERAMIC,DISC	0.022NF,5%,50V,C0G,TP,5X3	1	S.A	
C227	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C228	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C229	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C231	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C233	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C234	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C235	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C238	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C239	2201-000389	C-CERAMIC,DISC	0.022NF,5%,50V,C0G,TP,5X3	1	S.A	
C240	2305-000411	C-FILM,LEAD-PEF	470nF,5%,50V,TP,7.3x4.8x	1	S.A	
C241	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C244	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
C245	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C248	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C249	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C250	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C251	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C253	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C256	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C257	2305-001037	C-FILM,LEAD-PEF	330nF,5%,63V,TP,7.5x5.5x	1	S.A	
C259	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C263	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C265	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C270	2202-000863	C-CERAMIC,MLC-AXIAL	560pF,10%,50V,Y5P,TP	1	S.A	
C276	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C280	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C281	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C301	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C302	2201-000192	C-CERAMIC,DISC	0.01nF,0.25pF,500V,C0G,-,	1	S.A	
C305	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C306	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C307	2201-000003	C-CERAMIC,DISC	0.068NF,10%,2KV,SL,TP,7X5	1	S.A	
C401	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C403	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C408	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C411	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C413	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C415	2301-001259	C-FILM,LEAD-PPF	100nF,5%,400V,TP,19x8x16	1	S.A	
C418	2305-001037	C-FILM,LEAD-PEF	330nF,5%,63V,TP,7.5x5.5x	1	S.A	
C424	2201-000132	C-CERAMIC,DISC	0.1NF,10%,500V,Y5P,TP,6.5	1	S.A	
C499	2305-000237	C-FILM,LEAD-PEF	1uF,5%,63V,TP,7.5x15.5mm	1	S.A	
C501	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C502	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C503	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C504	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C505	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C508	2201-000723	C-CERAMIC,DISC	4.7NF,20%,3KV,Y5U,TP,16X5	1	S.A	
C511	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
C512	2202-000263	C-CERAMIC,MLC-AXIAL	470pF,10%,50V,Y5P,TP	1	S.A	
C513	2202-000263	C-CERAMIC,MLC-AXIAL	470pF,10%,50V,Y5P,TP	1	S.A	
C514	2202-000263	C-CERAMIC,MLC-AXIAL	470pF,10%,50V,Y5P,TP	1	S.A	
C601	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C602	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C603	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C604	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C605	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C610	2301-000289	C-FILM,LEAD-PEF	5.6nF,5%,50V,TP,7x6x3mm,	1	S.A	
C611	2301-000289	C-FILM,LEAD-PEF	5.6nF,5%,50V,TP,7x6x3mm,	1	S.A	
C701	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C702	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C703	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C704	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C705	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C706	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C707	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C708	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C709	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C710	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C807	2303-000147	C-FILM,LEAD-PPF	1NF,5%,2KV,TP,23X13X8MM,	1	S.A	
C809	2201-000732	C-CERAMIC,DISC	0.68NF,10%,1KV,Y5P,TP,7X4	1	S.A	
C810	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C818	2201-000930	C-CERAMIC,DISC	0.22NF,10%,500V,Y5P,TP,5.	1	S.A	
C823	2201-000930	C-CERAMIC,DISC	0.22NF,10%,500V,Y5P,TP,5.	1	S.A	
C824	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C828	2201-000374	C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5	1	S.A	
C843	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C844	2301-000356	C-FILM,LEAD-PEF	47nF,5%,50V,TP,7.5x4.0x6	1	S.A	
C845	2201-000930	C-CERAMIC,DISC	0.22NF,10%,500V,Y5P,TP,5.	1	S.A	
C888	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C904	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.5	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS3	AA40-00016A	TUNER	TDQ-6F/13F2S,NTSC,181CH,45.75MHZ,7	1	S.A	
CN330	3711-000577	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5MM,S	1	S.A	
CN330	3711-002642	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,ST	1	S.A	
CN330	3711-002644	HEADER-BOARD TO CABLE	BOX,5P,1R,2.5mm,ST	1	S.A	
CN330	3711-002647	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5mm,ST	1	S.A	
CN330	3711-003043	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,ST	1	S.A	
CN330	3711-000577	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5MM,S	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
△ CR403S	2301-001041	C-FILM,LEAD-PPF	15nF,5%,1.6KV,TP,29x14x2	1	S.A	
△ CR404S	2303-001001	C-FILM,LEAD-PPF	22nF,5%,630V,TP,18x14.5x	1	S.A	
△ CR406S	2306-000172	C-FILM,LEAD-PPF	270nF,5%,400V,BK,26.5x19	1	S.A	
△ CR511	2002-001017	R-COMPOSITION	1Kohm,10%,1/2W,AA,TP,3.7x9	1	S.A	
△ CX801S	2306-000321	C-FILM,LEAD-PPF	470NF,20%,275V,BK,31X11X	1	S.A	
△ CY802S	2201-000987	C-CERAMIC,DISC	2.2NF,20%,400V,Y5U,BK,12.	1	S.A	
D201	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D211	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D240	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D241	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D242	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D303	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D402	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D404	0402-001599	DIODE-RECTIFIER	DGP30L,1500,3A,DO-201AD(1	S.A	
D405	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-15,TP	1	S.A	
D406	0402-000540	DIODE-RECTIFIER	RU20A,600V,1.5A,DO-15,TP	1	S.A	
D407	0402-000540	DIODE-RECTIFIER	RU20A,600V,1.5A,DO-15,TP	1	S.A	
D408	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
D504	0402-000254	DIODE-RECTIFIER	RGP10J,600V,1A,DO-41,TP	1	S.A	
△ D801S	0402-001477	DIODE-BRIDGE	GSIB460,600V,4A,SIP-4,ST	1	S.A	
D803	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D804	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D805	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D807	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D809A	0402-001604	DIODE-RECTIFIER	MUR420,200V,4A,DO-201AD,	1	S.A	
D811	0402-001603	DIODE-RECTIFIER	MUR480E,800V,4A,DO-201AD	1	S.A	
D813	0402-001604	DIODE-RECTIFIER	MUR420,200V,4A,DO-201AD,	1	S.A	
DZ201	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ202	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ203	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ204	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ205	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ242	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ244	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ246	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500mW,DO	1	S.A	
DZ301	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500mW,D	1	S.A	
DZ302	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500mW,D	1	S.A	
DZ303	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500mW,D	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DZ306	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ403	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DZ605	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ702	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ703	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ704	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ807	0403-000718	DIODE-ZENER	MTZJ6.8B,6.52-6.79V,500mW,DO	1	S.A	
DZ810	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ811	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ812	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ813	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ814	0403-001320	DIODE-ZENER	MTZJ6.2C,6.16-6.4V,500mW,DO-	1	S.A	
DZ815	0403-001321	DIODE-ZENER	MTZJ6.8C,6.7-6.97V,500mW,DO-	1	S.A	
DZ816	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DZ817	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ818	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ901	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ902	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ903	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ904	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500mW,DO	1	S.A	
DZ905	0403-001220	DIODE-ZENER	UZ2.7BSB,2.7-2.9V,500mW,DO-3	1	S.A	
EL101	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL102	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL103	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL104	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL105	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL107	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EL108	6042-000001	EYELET	ID2.2,OD2.7,L3.1,Ni+SN,BSP3-1/2H	1	S.N.A	
EY101	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY102	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY103	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY104	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY105	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY106	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY107	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY108	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY109	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY110	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY111	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY112	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY113	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY114	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY115	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY116	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY117	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY118	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY119	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY120	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY121	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY122	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY123	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY126	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY127	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY128	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY129	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY130	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY133	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY134	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY135	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY136	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY137	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY138	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY139	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY140	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY141	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY142	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY143	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	
EY144	6042-000002	EYELET	ID1.5,OD2,L2.8,Ni+SN,BSP3-1/2H	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY145	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY146	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY147	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY148	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY149	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY150	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY151	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY152	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY153	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY154	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY155	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY156	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY157	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY158	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY159	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY160	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY161	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY162	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY165	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY171	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY172	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY173	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY174	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F801A	3602-000001	FUSE-CLIP	-,30mohm	1	S.A	
F801B	3602-000001	FUSE-CLIP	-,30mohm	1	S.A	
FD801A	3601-001228	FUSE-AXIAL LEAD	125V,10A,FAST-ACTING,EPO	1	S.A	
FD802	3601-000281	FUSE-CARTRIDGE	250V,4A,TIME-LAG,GLASS,5.	1	S.A	
△ FD802S	3601-001163	FUSE-AXIAL LEAD	125V,7A,-,EPOXY,2.4X7.1M	1	S.A	
△ FD803S	3601-001163	FUSE-AXIAL LEAD	125V,7A,-,EPOXY,2.4X7.1M	1	S.A	
GT101	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT102	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT103	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LOCKI	1	S.N.A	
GT501	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT502	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT503	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT504	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT801	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKING	1	S.N.A	
GT804	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT805	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
IC012	1203-001217	IC-POSI.ADJUST REG.	431,TO-92,3P,4.58MIL	1	S.A	
IC063	AA13-00116A	IC HYBRID	STR-W6750F,6,-20 to +115,TO-3P	1	S.A	
IC112	1103-001171	IC-EEPROM	24C161,2Kx8,DIP,8P,9.2x6.4mm,2	1	S.A	
IC202	1203-001943	IC-VOL. DETECTOR	7025,TO-92,3P,-,PLASTIC	1	S.A	
IC301	AA96-00623J	ASSY HEAT SINK P	AA62-00056A,SCREW,LA781	1	S.N.A	
IC602	AA96-04919A	ASSY HEAT SINK P	AA62-00161A,SCREW,LA420	1	S.N.A	
△ IC801S	AA96-50371T	ASSY HEAT SINK P	AA62-30181H,SCREW,STR-W	1	S.N.A	
IC802	AA96-00243Q	ASSY HEAT SINK P	SCREW,AA62-00045A,1203-	1	S.N.A	
IC804	AA96-00243K	ASSY HEAT SINK P	KA78R05,-,REGU,AA62-000	1	S.N.A	
ICV01	2904-001196	FILTER-SAW AV	44MHZ,SIP5K,ST,16.2DB,-,42	1	S.A	
ICV201	AA09-00441B	IC MICOM MTP	VCT4862,VCT49X3F-PY,F1,CT-2	1	S.N.A	
JA333	3722-001333	JACK-PIN	9P,NI,BLK,ANGLE	1	S.A	
JA333	3722-002556	JACK-PIN	3P,NI+Sn,GRN/BLU/RED,ANGLE	1	S.A	
L101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L107	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L201	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L202	2701-000116	INDUCTOR-AXIAL	10UH,10%,4298	1	S.A	
L203	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L205	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L208	2701-000142	INDUCTOR-AXIAL	1UH,10%,2534	1	S.A	
L241	2701-000142	INDUCTOR-AXIAL	1UH,10%,2534	1	S.A	
L244	2701-000143	INDUCTOR-AXIAL	1UH,10%,3070	1	S.A	
L247	2701-000142	INDUCTOR-AXIAL	1UH,10%,2534	1	S.A	
L248	2702-001094	INDUCTOR-RADIAL	10uH,10%,4x6mm	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,50	1	S.N.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R201	2001-000832	R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R202	2001-000832	R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R203	2001-000832	R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R204	2001-000832	R-CARBON	510OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R205	2001-000613	R-CARBON	3.9KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R206	2001-000613	R-CARBON	3.9KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R207	2001-000008	R-CARBON	15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R208	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R209	2001-000995	R-CARBON	820OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R210	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R211	2001-000977	R-CARBON	8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R212	2001-000666	R-CARBON	33OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R213	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R214	2001-000989	R-CARBON	820KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R216	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R217	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R218	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R219	2001-000554	R-CARBON	270OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R220	2001-000232	R-CARBON	1.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R221	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R223	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R240	2001-000221	R-CARBON	1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R241	2001-000878	R-CARBON	6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R242	2001-000666	R-CARBON	33OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R244	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R245	2001-000666	R-CARBON	33OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R246	2001-000362	R-CARBON	150OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R247	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R248	2001-000977	R-CARBON	8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R249	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R250	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R251	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R252	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R253	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R254	2001-000938	R-CARBON	68OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R255	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R256	2001-000554	R-CARBON	270OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R258	2001-000221	R-CARBON	1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R259	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R260	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R261	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R262	2001-000362	R-CARBON	150OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R264	2001-000362	R-CARBON	150OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R265	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R266	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R268	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R270	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R273	2001-000924	R-CARBON	680OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R274	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R276	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R277	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R302	2004-001984	R-METAL(S)	26.7Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R304	2003-000437	R-METAL OXIDE(S)	1.5ohm,5%,2W,AF,TP,4x12	1	S.A	
R305	2003-002070	R-METAL OXIDE	1ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
R306	2001-000016	R-CARBON(S)	1OHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R309	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R310	2003-002009	R-METAL OXIDE(S)	390ohm,5%,2W,AF,TP,3.9x	1	S.A	
R311	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R314	2004-005054	R-METAL(S)	39KOHM,1%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R315	2004-005054	R-METAL(S)	39KOHM,1%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R316	2004-001397	R-METAL(S)	4.7Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R401	2001-001153	R-CARBON(S)	47ohm,5%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R402	2001-001153	R-CARBON(S)	47ohm,5%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R404	2001-001114	R-CARBON(S)	270OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R405	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R406	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R407	2004-002022	R-METAL(S)	51Kohm,1%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R408	2004-000412	R-METAL	18Kohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R409	2004-001402	R-METAL(S)	6.8Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R410	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R411	2004-001377	R-METAL(S)	120Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R413	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R414	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R418	2008-001137	R-FUSIBLE(S)	3.3ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R423	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R426	2003-002288	R-METAL OXIDE(S)	2.2KOHM,5%,2W,AF,TP,3.9	1	S.A	
R501H	2002-001017	R-COMPOSITION	1Kohm,10%,1/2W,AA,TP,3.7x9	1	S.A	
R502H	2002-001017	R-COMPOSITION	1Kohm,10%,1/2W,AA,TP,3.7x9	1	S.A	
R504	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R505	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R506	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R507	2001-000793	R-CARBON	47OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R508	2001-000793	R-CARBON	47OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R509	2001-000793	R-CARBON	47OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R510	2001-000515	R-CARBON	220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R511	2001-000515	R-CARBON	220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R512	2001-000515	R-CARBON	220OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R513	2003-002008	R-METAL OXIDE(S)	18Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R514	2003-002008	R-METAL OXIDE(S)	18Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R515	2003-002008	R-METAL OXIDE(S)	18Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R516	2001-000679	R-CARBON	36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R517	2001-000679	R-CARBON	36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R518	2001-000679	R-CARBON	36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R519	2001-001155	R-CARBON(S)	5.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R520	2001-001062	R-CARBON(S)	10MOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R601	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R602	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R603	2001-001144	R-CARBON(S)	4.7KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R604	2001-000458	R-CARBON	2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R605	2001-000458	R-CARBON	2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R606	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R607	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R608	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R609	2001-000924	R-CARBON	680OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R610	2001-000458	R-CARBON	2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R611	2001-000458	R-CARBON	2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R620	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R621	2001-000232	R-CARBON	1.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R622	2001-000232	R-CARBON	1.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R623	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R703	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R704	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R705	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R706	2001-000938	R-CARBON	68OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R708	2001-000005	R-CARBON	390ohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R709	2001-000005	R-CARBON	390ohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R710	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R711	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R712	2001-000660	R-CARBON	33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R713	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R801	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R802	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R803	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R804	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R805	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R806	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R807	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R810	2001-001097	R-CARBON(S)	2.4KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R811	2009-001010	R-METAL PLATE	0.2ohm,10%,5W,CL,TP,5x14x1	1	S.A	
R816	2004-001891	R-METAL(S)	133Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R817	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R818	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R819	2004-001983	R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R820	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R821	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R823	2003-002020	R-METAL OXIDE(S)	56Kohm,5%,2W,AF,TP,3.9x	1	S.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R829	2001-001078	R-CARBON(S)	15KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R830	2001-001078	R-CARBON(S)	15KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R831	2001-001078	R-CARBON(S)	15KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R833	2001-001153	R-CARBON(S)	47ohm,5%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R836	2001-001138	R-CARBON(S)	390OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R841	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R843	2001-000020	R-CARBON(S)	220HM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R881	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R882	2001-000003	R-CARBON	330ohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R889	2001-001107	R-CARBON(S)	220ohm,5%,1/2W,AA,TP,2.4x6.4	1	S.A	
R895	2001-001152	R-CARBON(S)	47KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R896	2004-000412	R-METAL	18Kohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R902	2001-000005	R-CARBON	390ohm,5%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
R903	2001-000347	R-CARBON	13KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R904	2001-000347	R-CARBON	13KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R906	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R907	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R908	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R909	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R910	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R911	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R914	2001-000007	R-CARBON	3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R915	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R916	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R917	2001-000347	R-CARBON	13KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RM901	AA32-00015A	Module Remocon	FRP-3521H31,38KHZ,940MM,M	1	S.A	
△ RR09S	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
△ RR10S	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
△ RX801S	2002-000133	R-COMPOSITION	3.3Mohm,5%,1/2W,AA,TP,3.5x	1	S.A	
△ RY801S	2002-001012	R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	
T0010	AA27-00067A	COIL CHOKE	-,240uH,YL9N 12x20 C:6.0,0.12	1	S.A	
T0010	AA27-00422A	COIL CHOKE	DR 10 i ₂ 12 (C:6.0),I ROBOT2,	1	S.A	
T0010	AA61-20284A	HOLDER	P-CORD,PP,-,-,BLK,VO,KE-002	1	S.N.A	
T0061	3811-001609	WIRE-PVC CU	BCWA,300V,ROLL,-,#22,BLK	0.15	S.N.A	
T0066	AA62-00161A	HEAT SINK-ES	IROBOT2,A6063,T2.0,50*40,WH	1	S.N.A	
△ T0066	AA96-20112C	ASSY POWER CORD	-,EP2/NO,H/C250,KJ10,THA	1	S.A	
T0066	AA62-30181H	HEAT SINK-ES	-,AL6063 EXTR.,2,WHT,50MM,-	1	S.N.A	
T0077	AA41-01281C	PCB MAIN	VALIANT,FR-1,1L,A,1.6T,245*245,	1	S.N.A	
T0085	1201-002507	IC-AUDIO AMP	LA42032,SIP,13P,25.6x13.9mm	1	S.A	
T0087	1203-002018	IC-POS.FIXED REG.	78R05,TO-220,4P,10MIL	1	S.A	
T0087	1203-001944	IC-POS.FIXED REG.	78RM33,TO-220,3P,-,PL	1	S.A	
T0087	1203-001944	IC-POS.FIXED REG.	78RM33,TO-220,3P,-,PL	1	S.A	
T0088	1204-002784	IC-VERTICAL PROCESSO	LA78141-E,TO220,7P,	1	S.A	
T0099	AA94-16096B	ASSY PCB MISC-CRT	21INCH,K16C,VALIANT	1	S.A	
T0100	AA97-16914B	ASSY AUTO-CRT	VALIANT	1	S.N.A	
T0175	AA62-00045A	HEAT SINK-PS	-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0175	AA62-00045A	HEAT SINK-PS	-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0175	AA62-00056A	HEAT SINK-PS	-,T1.0,-,41*35*70,D2,-,-,	1	S.N.A	
T0175	AA62-00162A	HEAT SINK-PS	IROBOT2,A1050,T1.0,23*40,WH	1	S.N.A	
T0175	AA62-00164A	HEAT SINK-PS	IROBOT2,A1050,T1.0,41*50,WH	1	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.025	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.003	S.N.A	
T0245	AA39-20010D	LEAD CONNECTOR-ASSY	,1P,400,YFH800-01,S,	1	S.A	
T0268	AA39-10006K	CBF-POWER CORD	-,KJ-10,SPT-2 2/18AWG,240	1	S.A	
T0296	AA27-00075B	COIL LINEARITY	50uH,DR14x20,11mm,18x38mm	1	S.A	
T0313	3404-001004	SWITCH-TACT	12V,50mA,160gf,8.4x22.7mm,SP	1	S.A	
T0313	3404-001252	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A	
T0313	3404-001252	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A	
T0313	3404-001252	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A	
T0313	3404-001252	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A	
T0313	3404-001252	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
T0527	AA65-30018A	CLAMPER CORE-WIRE	DONG-A,NYLON-66,-,-,-,	1	S.N.A	
T0900	1404-001045	THERMISTOR-NTC	4.7ohm,4.565A,2900K,-,-,-	1	S.A	
T401	AA26-50001M	TRANS-H.DRIVE	-,,-,80mH,-,-,520uH,-,-,-	1	S.A	
T444	AA26-00291A	TRANS FBT	JF0501-91910A(FQH21A004),I ROB	1	S.A	
T801SA	AA26-00292A	TRANS SWITCHING	CT-21Z50,AC90-264V,PM7,1	1	S.N.A	

Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
△ V999S	3704-001197	SOCKET-CRT	8P+SEN,29PI,22.5PI,NI+SN,-	1	S.A	
△ VP801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
△ VX801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
X201	2801-004019	CRYSTAL-UNIT	20.25MHz,30ppm,28-AAM,13pF,	1	S.A	
	0502-001073	TR-POWER	TT2222LS,NPN,35000mW,TO-220F,ST	1	S.A	

ASSY COVER FRONT

M0001	AA90-05773D	ASSY COVER FRONT	CL21Z50MQLXRCL	1	S.N.A	
T0238	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	S.N.A	
T0607	AA61-40113A	STOPPER-PCB	501H,HIPS,-,-,HB,NTR,-	1	S.N.A	
T0003	AA96-04720F	ASSY COVER P-FRONT	21Z50,,HIPS,HB,,BKN15	1	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,-,B,M4,L12,ZPC(BLK),S	1	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,-,B,M4,L12,ZPC(BLK),S	1	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,-,B,M4,L12,ZPC(WHT),S	1	S.N.A	
T0069	AA60-00091R	SPACER-FELT	,FELT,250X10,,,BLK,T0.5,,	3	S.N.A	
M0081	AA60-10002A	SCREW-TAPTITE	RH,+,-,M4,L12,ZPC(WHT),S	4	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0112	AA63-01553E	COVER-FRONT	21Z50,HIPS,HB,GR503,BKN1576+	1	S.N.A	
T0057	AA64-04417A	LOGO-BADGE	Z50,AL,1.2,1G,50mm,SILVER,SAM	1	S.N.A	
T0023	AA64-04429A	KNOB POWER	21Z50 / 21Z51,ABS,HB,BKN1576	1	S.N.A	
T0022	AA64-04430A	KNOB CONTROL	21Z50 / 21Z51,ABS,HB,BKN157	1	S.N.A	
T0299	AA64-04431A	WINDOW-RMC,LED	21Z50/ 21Z51,PC,CLEAR	1	S.N.A	
T0527	AA65-00011C	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
T0175	AA96-04766A	ASSY SPEAKER P	8ohm,10W,R/B700mm,Y/B500m	1	S.A	
T0610	AA96-04791A	ASSY PCB P-AV SIDE	-,,-,-,CARTER & FANT	1	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.003	S.N.A	
T0557	AA97-16790A	ASSY AUTO-A/V	CT-21Z45,KOREA,NARNIA	1	S.N.A	
RA01	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RA02	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
CA05	2202-000183	C-CERAMIC,MLC-AXIAL	2.2NF,20%,16V,Y5R,TP	1	S.A	
CA06	2202-000183	C-CERAMIC,MLC-AXIAL	2.2NF,20%,16V,Y5R,TP	1	S.A	
CA01	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
CA02	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C	2401-002009	C-AL	100uF,20%,16V,GP,TP,6.3x7,5	1	S.A	
C	2401-002009	C-AL	100uF,20%,16V,GP,TP,6.3x7,5	1	S.A	
LA01	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
LA02	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
00VER	AA41-01178A	PCB SUB	CS21Z30,FR-1,1,A,1.6,245*245*1.6	1	S.N.A	
T0245	AA39-20068B	LEAD CONNECTOR-ASSY	,8P,400,YBNH025-08,6	1	S.A	
JA330	3722-001061	JACK-PHONE	1P,3.6PI,AG,BLK,N	1	S.A	
T0245	AA39-20069D	LEAD CONNECTOR-ASSY	,5P,300,YBNH025-05,6	1	S.A	
JA333	3722-002595	JACK-PIN	3P,Ni,BLK,STRAIGHT	1	S.A	
T0382	BP61-00495C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W30.0mm	0.2	S.N.A	

ASSY COVER REAR

M0002	AA90-05774Z	ASSY COVER REAR	21Z50,HIPS,HB,BK500,K16C	1	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,-,B,M4,L15,ZPC(BLK),SWR	7	S.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,-,B,M4,L15,ZPC(BLK),SWR	2	S.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
M0013	AA96-04785B	ASSY COVER P-REAR	CL21Z50MQ3,LATIN,,HIPS	1	S.A	
T0069	AA60-00091R	SPACER-FELT	,FELT,250X10,,,BLK,T0.5,,	3	S.N.A	
M0006	AA63-01555D	COVER-REAR	21Z50,HIPS,HB,BK500,ASIA	1	S.N.A	
T0578	AA64-03660Z	INLAY AV	21Z30(NT),PS,T0.3,BLK,SHEET,K16	1	S.N.A	
T0066	AA64-03974Z	INLAY-BACK	21Z50,PS,T3.0,SHEET,BLK,K16C,	1	S.N.A	

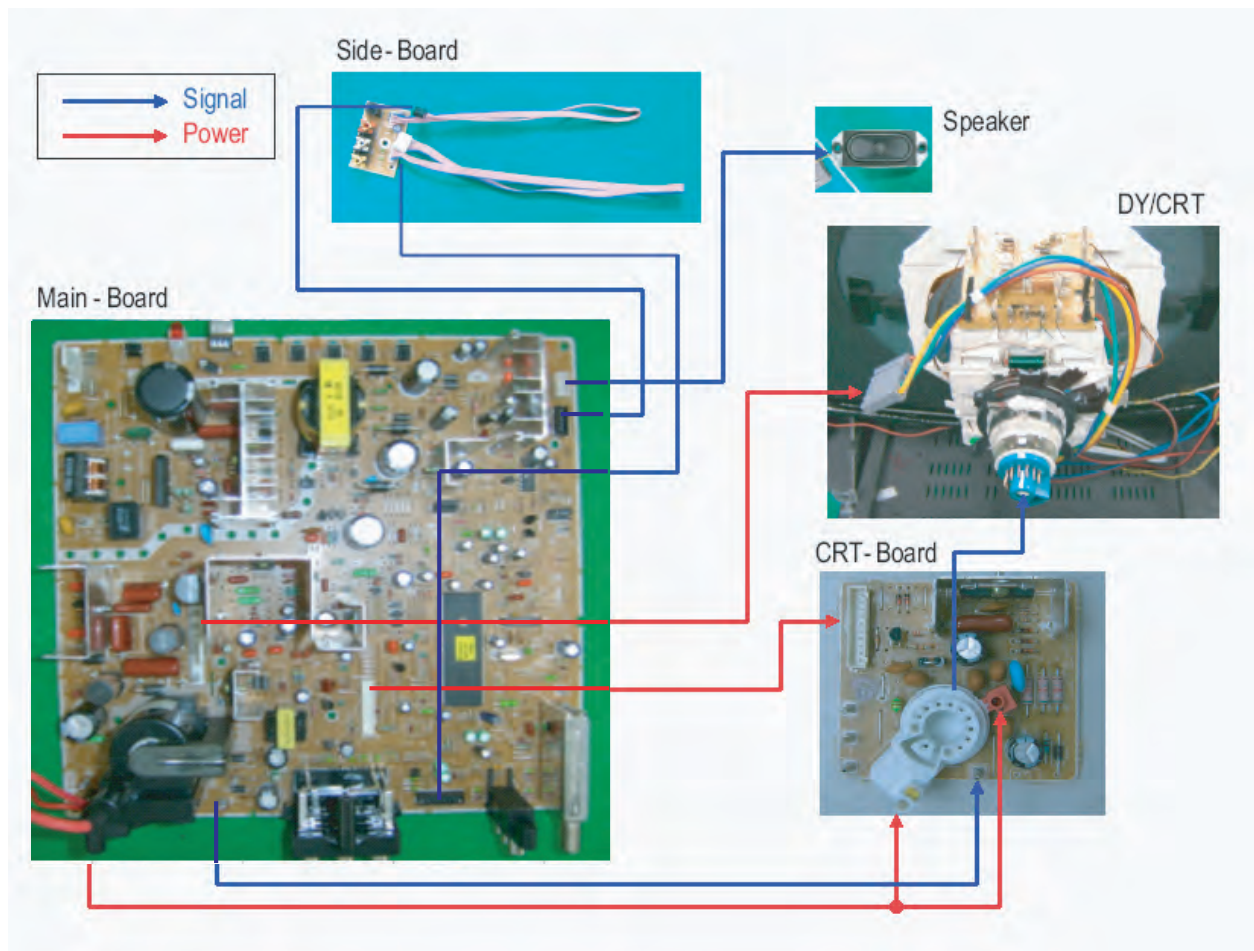
ASSY CPT

T0521	AA91-10516H	ASSY CPT	A51QGV991X201,+380,AA03-00533A,	1	S.N.A	
M0148	3302-000006	MAGNET-RUBBER	AF,14G,1620-1980G,0.58-0.9	1	S.A	
△ T0063	AA03-00533A	CRT COLOR	A51QGV991X201,+380mG,0.915,9.1	1	S.A	
T0089	AA27-00404A	COIL DEGAUSSING	ALUMINIUM,Narnia,7.5mH,6	1	S.A	
T0527	AA65-30107A	CLAMPER CORE-D,COIL	20-22 INCH,NYLON 66,	4	S.N.A	





Loc. No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0603	AA96-04573A	ASSY TBC WIRE P	4*0.12TA*16,21,NTSC,3P	1	S.N.A	
ASSY P/MATERIAL						
M0113	AA92-11966B	ASSY P/MATERIAL	21Z50	1	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	6	S.N.A	
T0524	6902-000417	BAG PE	HDPE/NITRON/HDPE,T0.015/T0.	1	S.N.A	
ASSY BOX						
M0003	AA92-12095Y	ASSY BOX	CL21Z50MQ3XXAP	1	S.N.A	
BOX/SET	AA69-04029D	BOX-SET	21Z50-VE,CB,A1,DW,W645,D387,H506	1.01	S.N.A	
ASSY LABEL						
M0019	AA92-12272A	ASSY LABEL	CL21Z50MQ3XRCL	1	S.N.A	
ASSY ACCESSORY						
M0045	AA92-12273C	ASSY ACCESSORY	CL21Z50MQ3XXAP	1	S.N.A	
M0045	AA96-04982C	ASSY ACCESSORY	CL21Z50MQ3XXAP,-,-,-,-,VA	1	S.N.A	
T0074	AA59-00385C	REMOCON	TOMORROW,TM85,S3C1860XP0-SKT1,30	1	S.A	
T0175	AA68-03727A	MANUAL FLYER-01,WARRANTY CARD	All,SAMSUN	1	S.N.A	
C/CARD	AA68-03777A	MANUAL USERS-CARD,06	comm,Samsung,Englis	1	S.N.A	
T0511	AA68-03806H	MANUAL USERS	Comm,Samsung,Spanish,S.Amer	1	S.N.A	
T0524	AA69-01195A	BAG PE	CL29A6W8X,HDPET0.012,93/4X151/2	1	S.N.A	
T0511	AA68-03242L	MANUAL FLYER-SAFETY GUIDE	comm,Samsung,E	1	S.N.A	
T0511	AA68-03806M	MANUAL USERS	COMM,Samsung,English,S.Amer	1	S.N.A	

6. Wiring Diagram

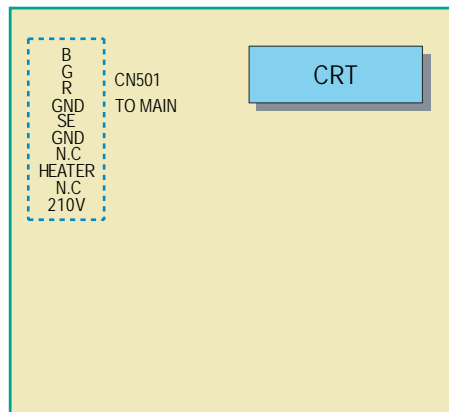
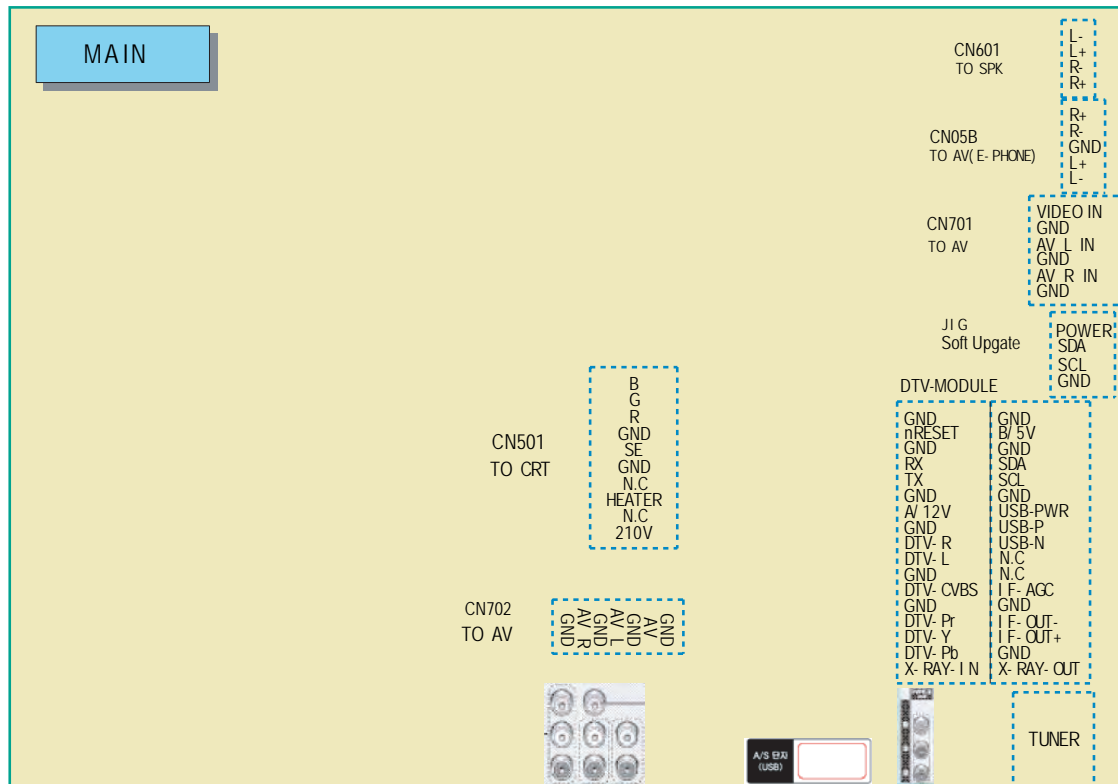
6-1 Overall Wiring



※ The code number of cable(Lead-connector) can be changed, see "5. Exploded View & Part List."

Use	① CRT Board↔Main Board	② Power Code	③ Speaker Wire
Code	BP39-00173B	AA96-20107C	AA96-04766A
Photo			
Use	④ CRT Board↔Main Board		
Code	AA39-20010D		
Photo			

6-2 Pin Connection



6-2-1 Main Board Connector Pin

CN501

CRT Board connection

Pin No.	Pin Name
1	B
2	G
3	R
4	GND
5	SENCE
6	GND
7	SYN
8	HEATER
9	GND
10	200V

CN05B

Side-AV connection

Pin No.	Pin Name
1	L+
2	L+
3	GND
4	R+
5	R-

CN701

Side-AV connection

Pin No.	Pin Name
1	AV2 Video In
2	GND
3	AV2 L In
4	GND
5	AV2 R In
6	GND

CN601

Speaker connection

Pin No.	Pin Name
1	L+
2	L+
3	R+
4	R-

CN501

CRT Board connection

Pin No.	Pin Name
1	GND
2	AV R IN
3	GND
4	AV L IN
5	GND
6	VIDEO IN
7	GND

CN501

Pin No.	Pin Name
1	B
2	G
3	R
4	GND
5	SENCE
6	GND
7	SYN
8	HEATER
9	GND
10	200V

6-2-2 Connector role

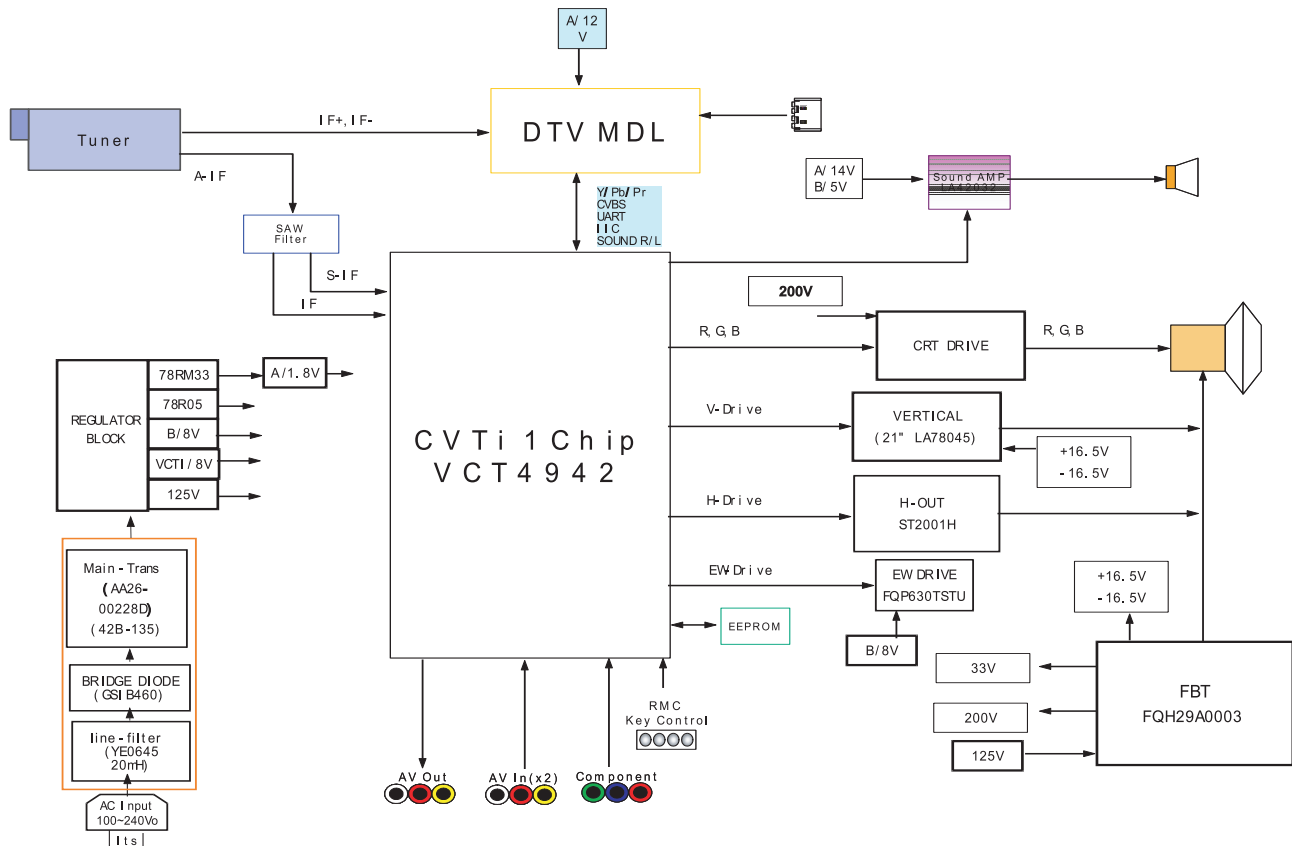
Loc. No.	Description
CN501	Main Board and CRT Board connect
CN05B	Main Board and Side-AV to E-Phone connect
CN701	Main Board and Side-AV connect
CN601	Main Board and Speaker connect
CN702	Main Board and Side-AV connect

MEMO

7. Schematic Diagram

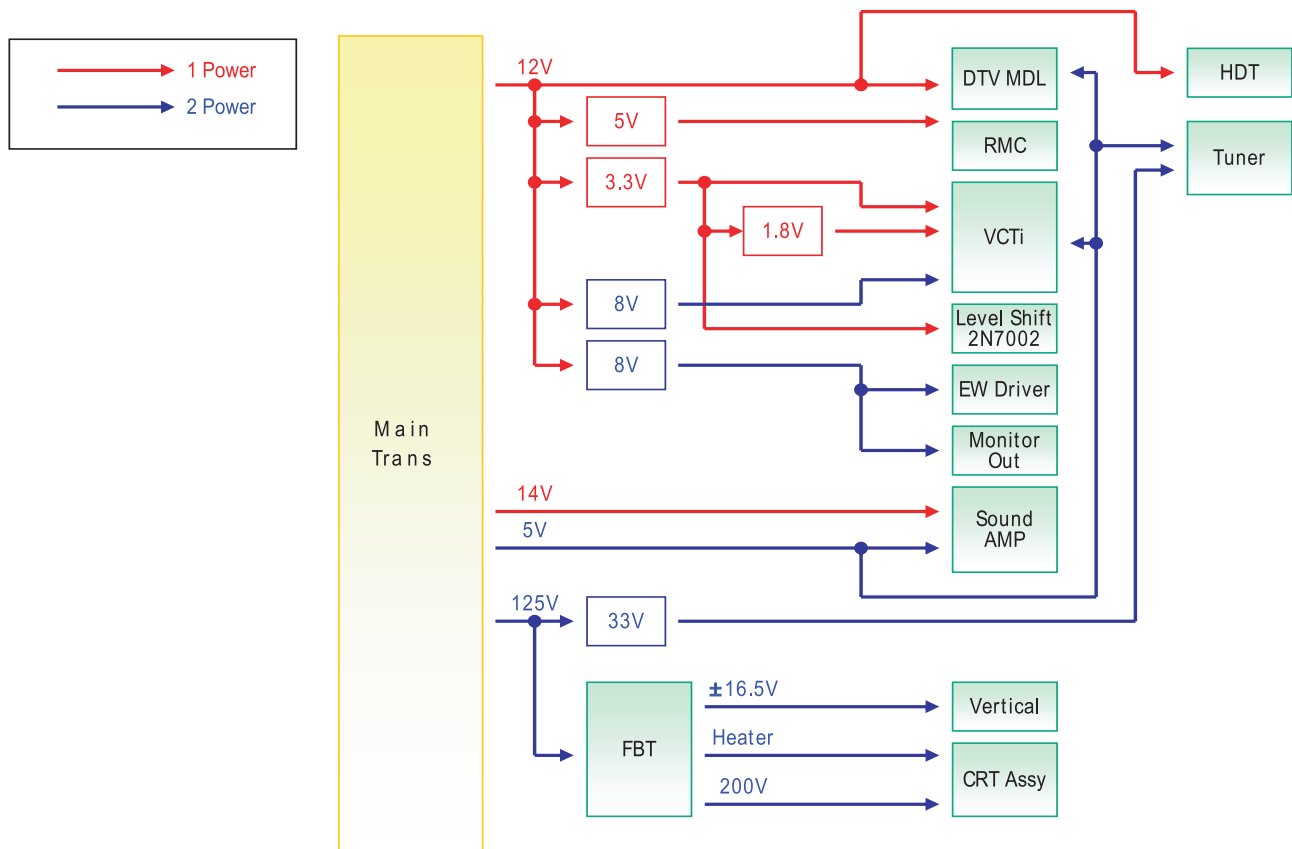
7-1 Circuit Description

7-1-1 Overall Block Description



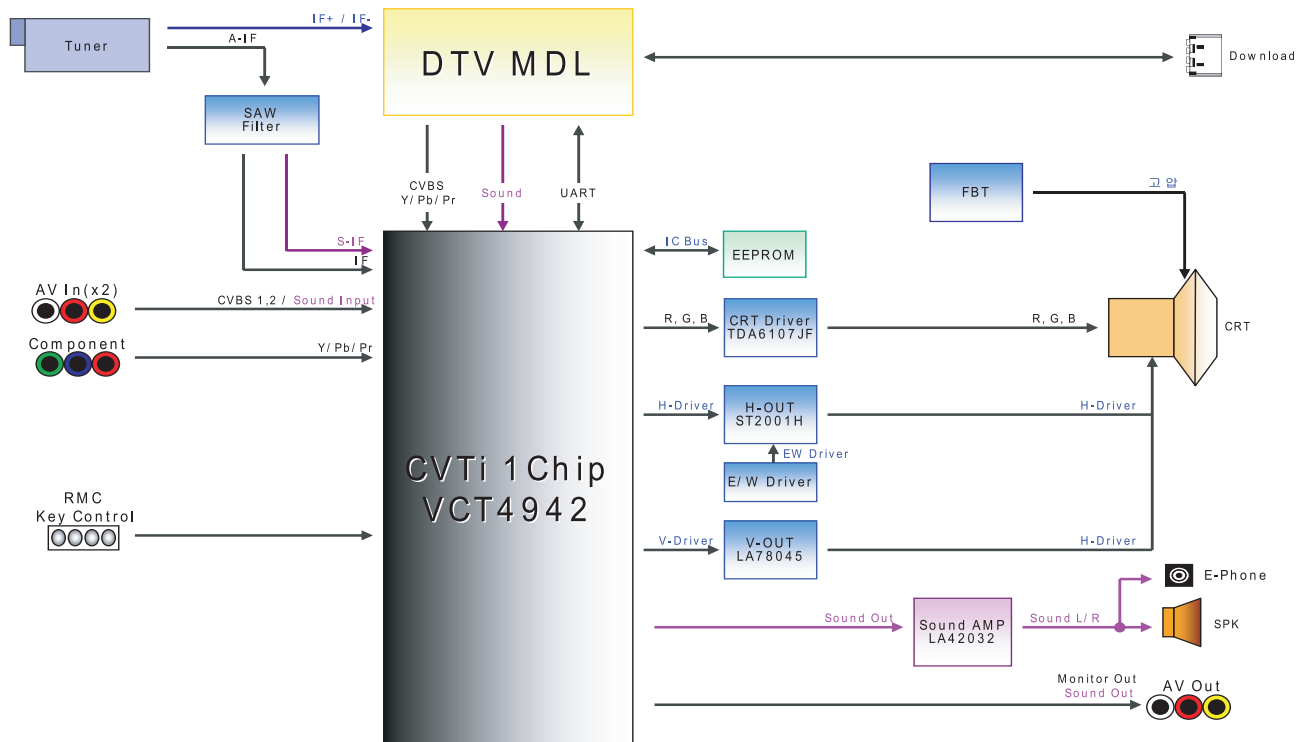
Part	Function
VCTi 1Chip	Treat IF+MICOM+VIDEO+MSP+Switching function.
DTV Module	Treat Channel, MPEG Decoder, AC-3 Decoder, CPU, Scaler, Video DAC, Audio function related to DTV signal.
VIDEO	Output video signal , input by Main Tuner and external equipment through VCTi Chip, as the final CRT R/G/B
SOUND	Output as Speaker through Audio Processing block and Sound AMP inside VCTi

7-1-2 Power Signal

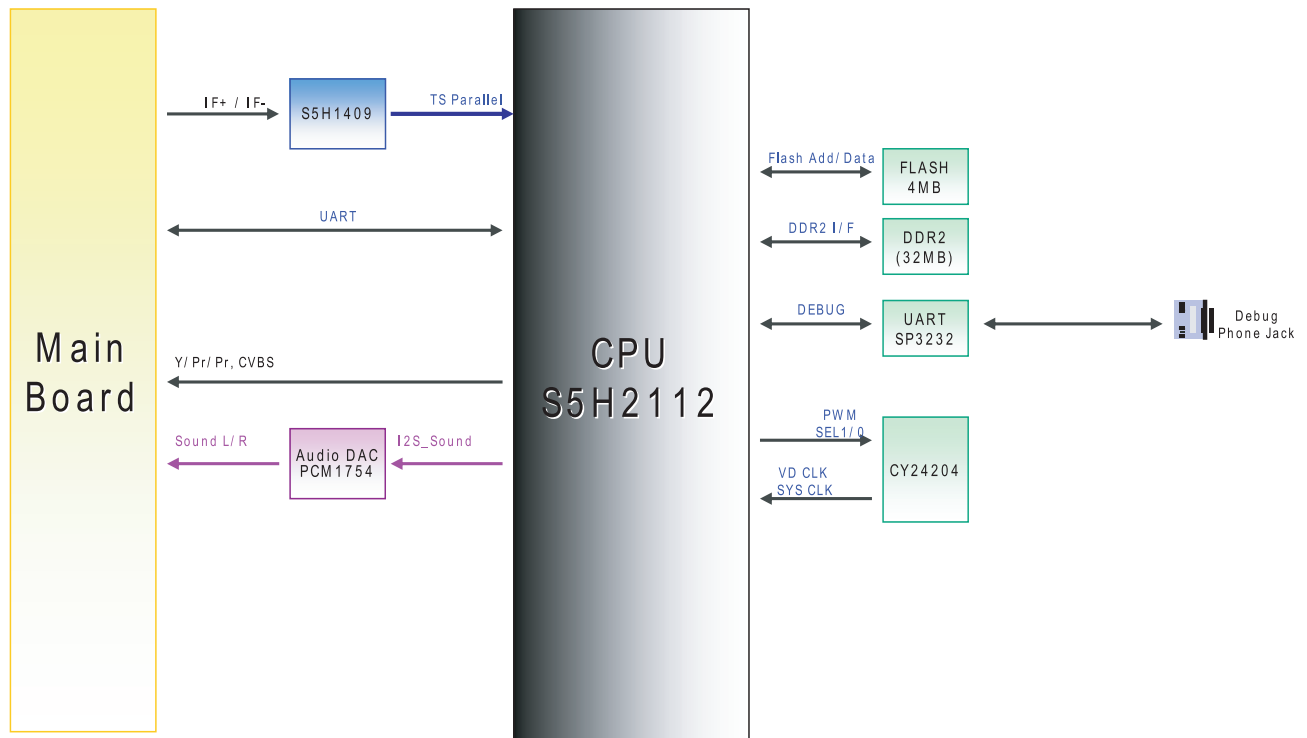


7-1-3 Partial Block Diagram

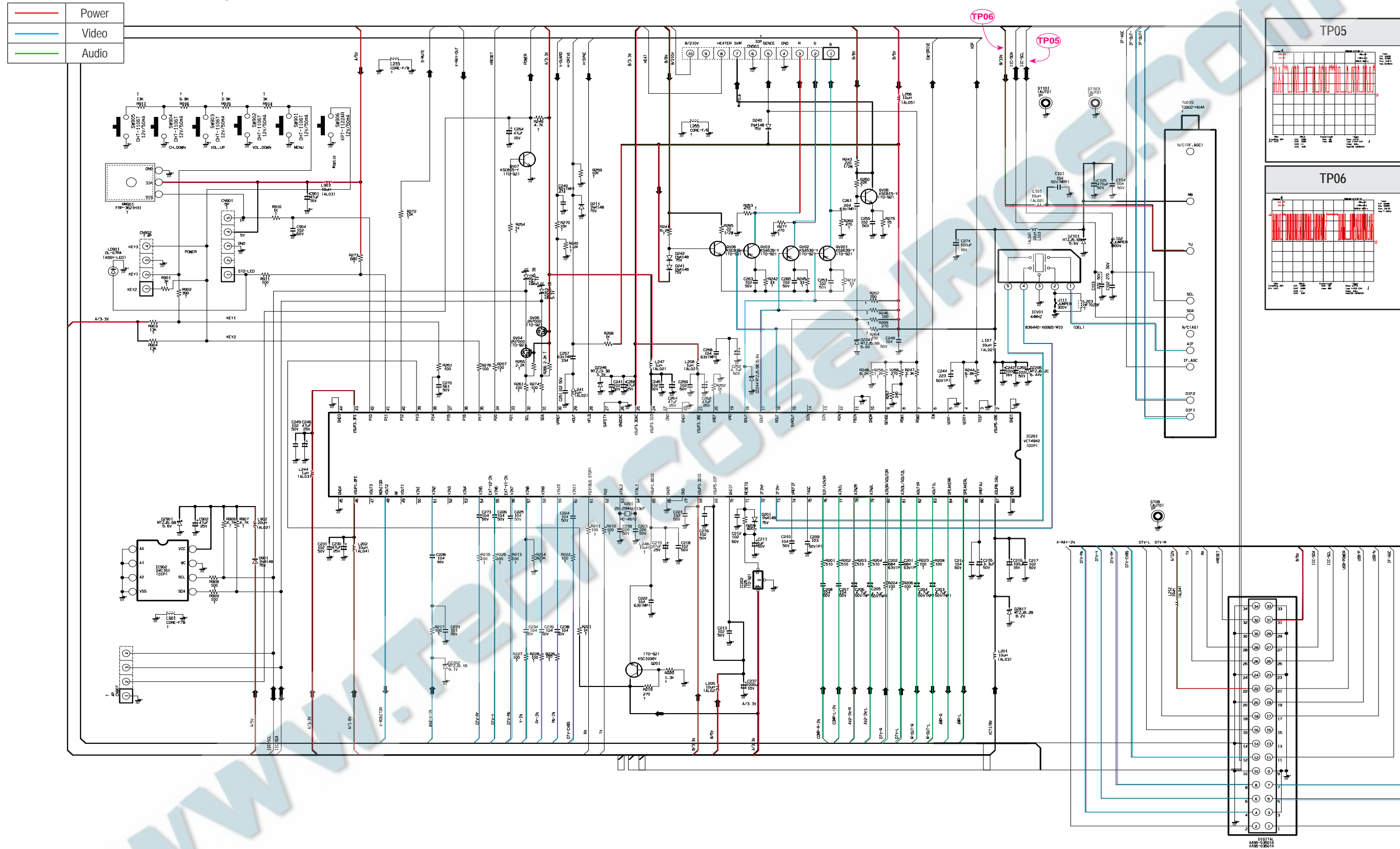
1. Main Block Description



2. DTV MDL Block Description



MEMO



<div></div>	Video
<div></div>	Audio

SIDE A / V

TO SIDE A / V

CH701
6P

CH702
6P

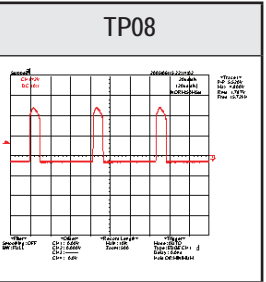
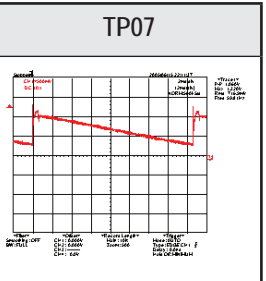
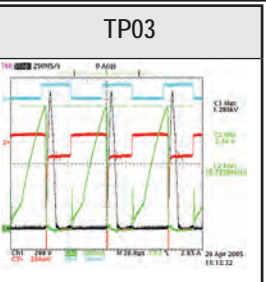
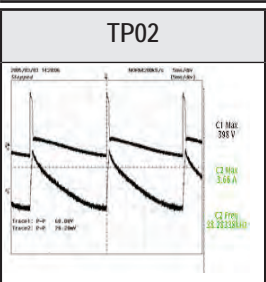
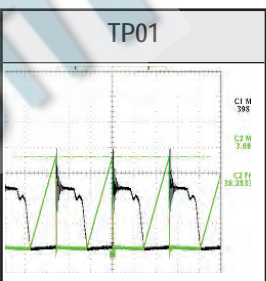
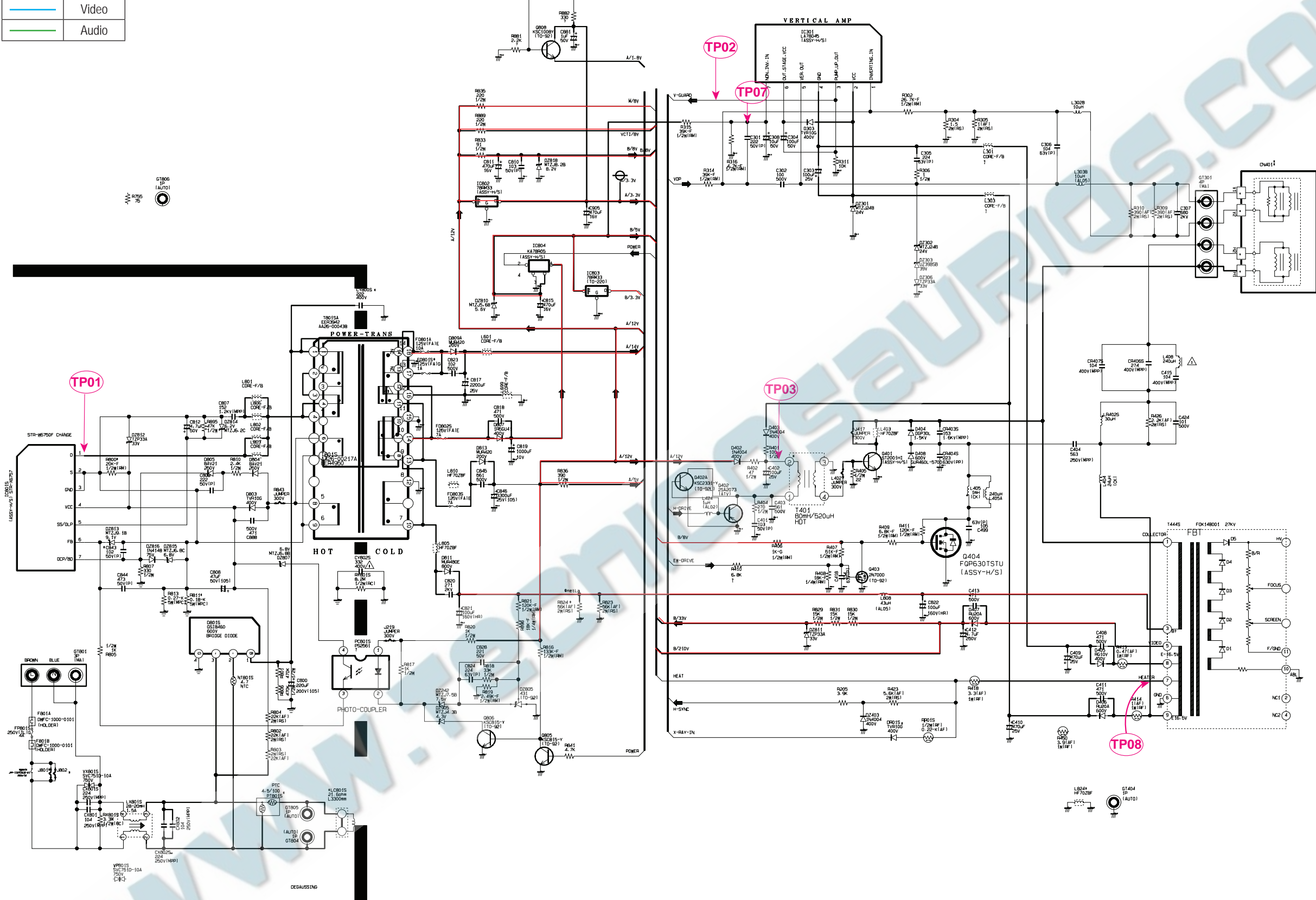


JA703
787016-1
4P/1C

CH601
4P

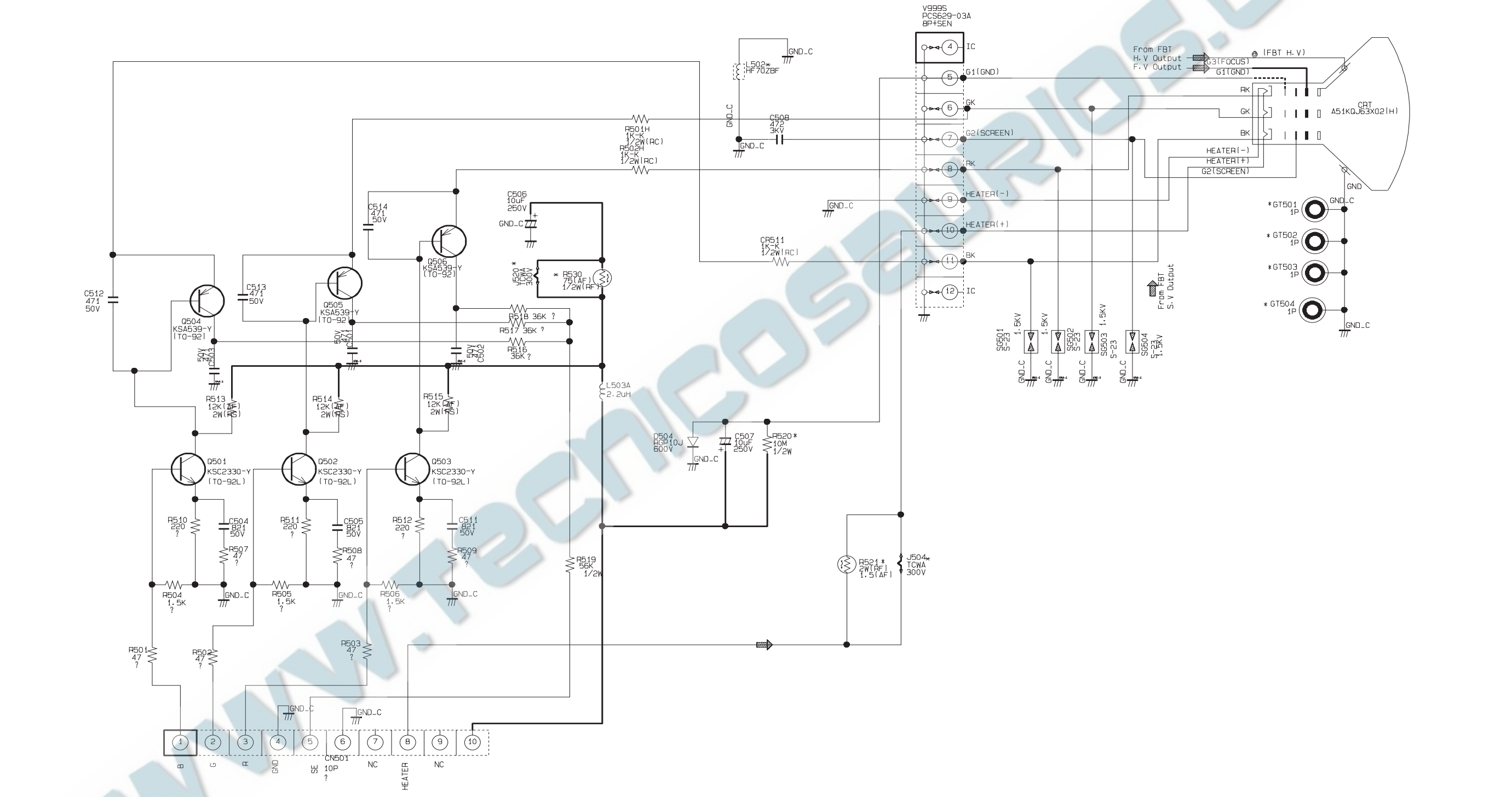
Video

Audio



—	Video
—	Audio

CRT (MAIN SUB CRT)



	Video
	Audio

